## **ABSTRACT**

A method and mold assembly to control the polymerization of a molded article. In one embodiment, an amorphous posterior mold comprising a non-critical surface having a controlled radius of curvature is used to produce molded articles. In an alternate embodiment, ophthalmic lenses are produced using a posterior mold in which the concave surface of the non-critical surface is filled with a liquid having a similar refractive index as the mold material. In still another embodiment, a positive lens is placed at a predetermined distance adjacent to the mold assembly to alter the irradiation path to the mold assembly. In still another embodiment, a positive lens is placed within the concave surface of the posterior lens.